SwipeBite - Midterm

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Problem

The **studies** show:

If a person eats out at least once a day, that would result in an average **7300 minutes** per year they would spend to find somewhere to eat. That's 5 days for the average person each year! [1]

No you decide! No YOU! The average couple spends a whopping 132 hours a year just deciding where to EAT
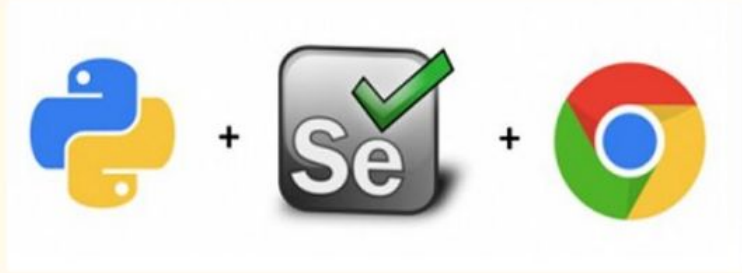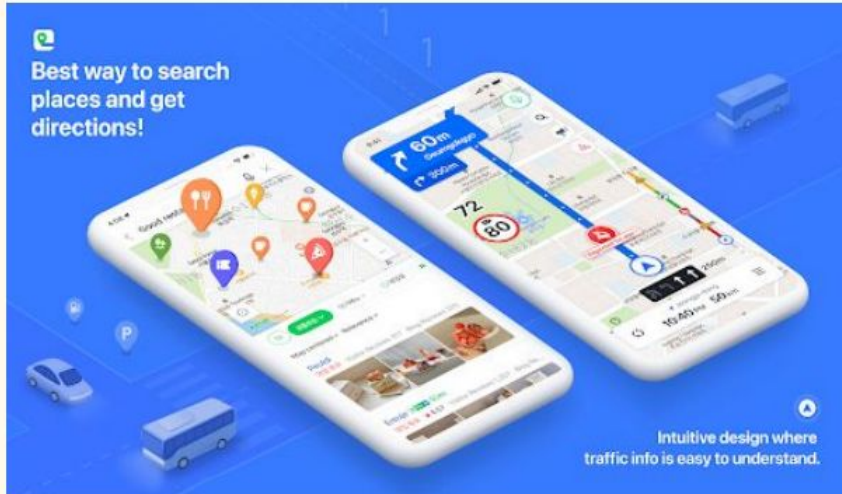
[2]

Project Plan – Brief Schedule

Task	Assignee	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14
Feature Refinement	All Members												
UX/UI Design	Frontend												
DB Structurer Design	Backend												
App Page Development	Frontend												
API Development	Backend												
Deployment and Testing	All members												

Role Distribution

- **Shakhzod** – Frontend & Backend Team

  - Firebase database

  - Login/Signup feature

  - Flutter integration

- **Ramon Arias** – Frontend Team

  - Figma design

  - Translation to Flutter

  - Flutter implementation

- **Sung Jun Park** – Frontend & Crawler Team

  - Naver Maps crawler

  - Flutter implementation

- **Yujin Juhn** – Crawler Team
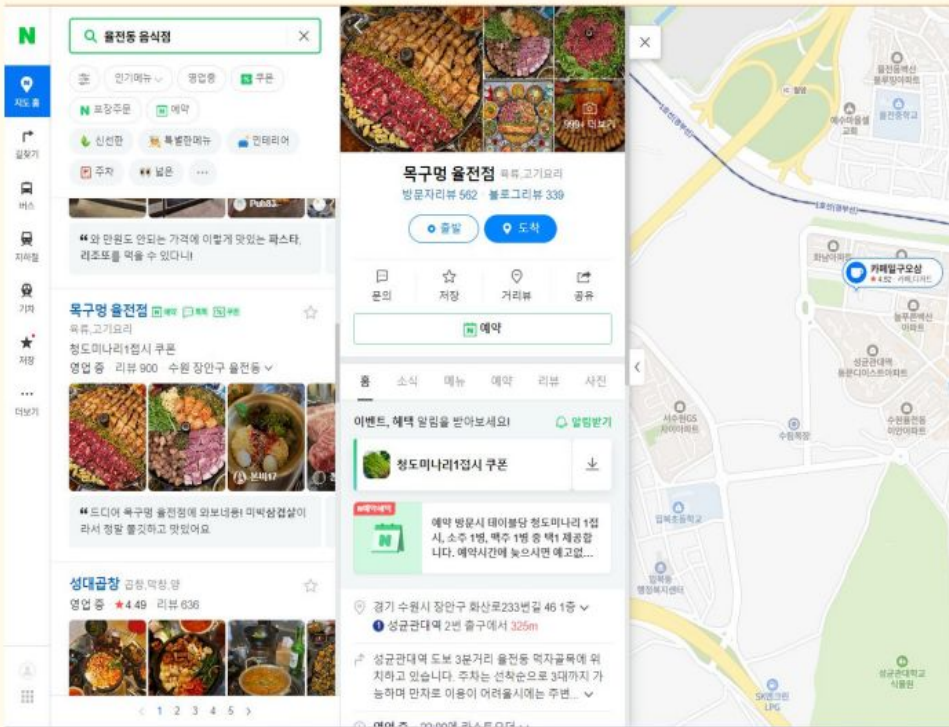
  - Naver Maps crawler – Python

  - Collection of data

Naver Maps Crawler

- **HTML Parsing:** We'll use HTML parsing libraries to extract the desired data from the page's structure.
- **Data Storage:** Extracted data will be stored in a structured format, such as a database or CSV files, for further analysis and use.
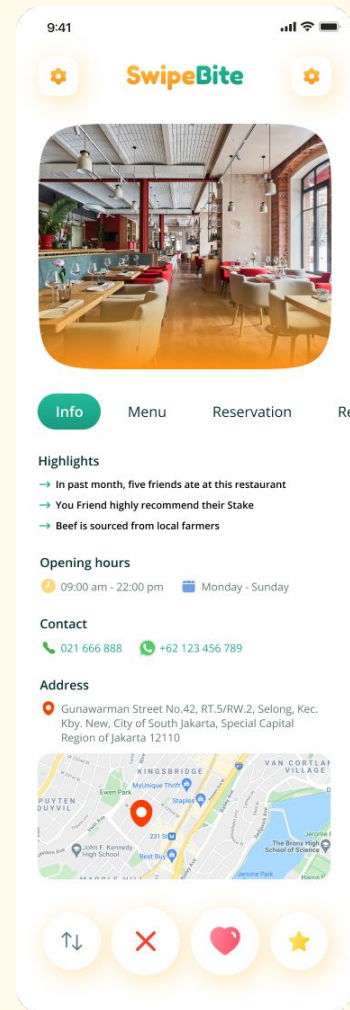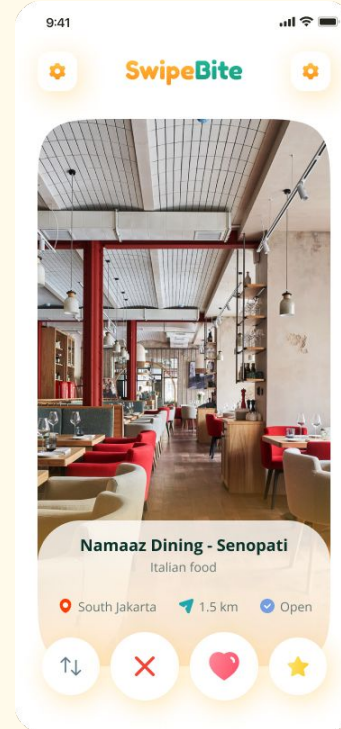

Best way to search places and get directions!

Intuitive design where traffic info is easy to understand.
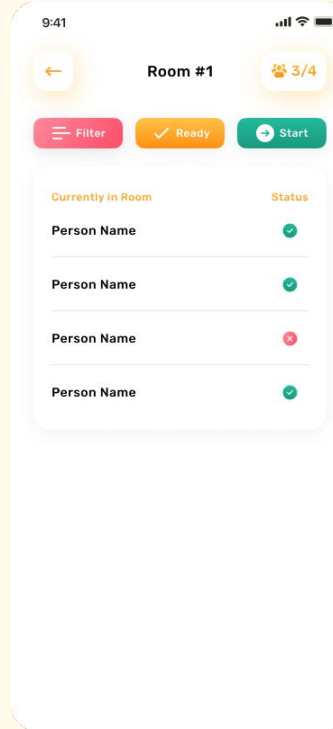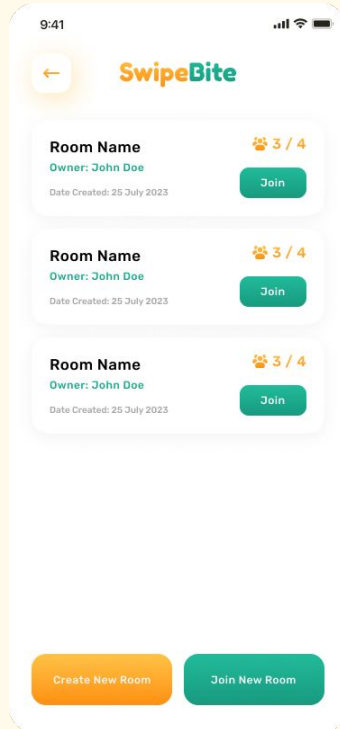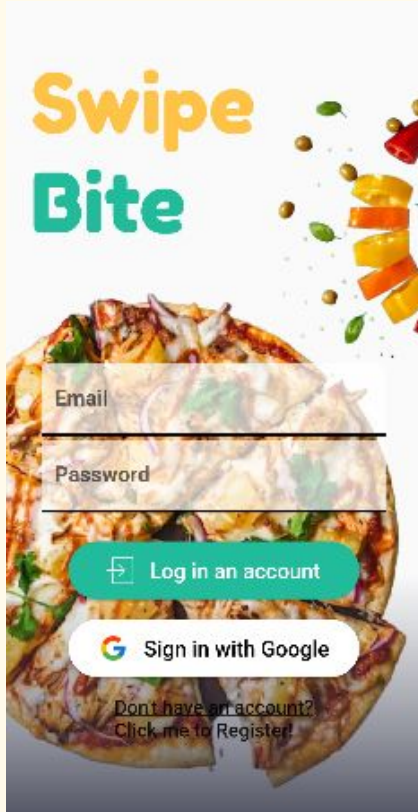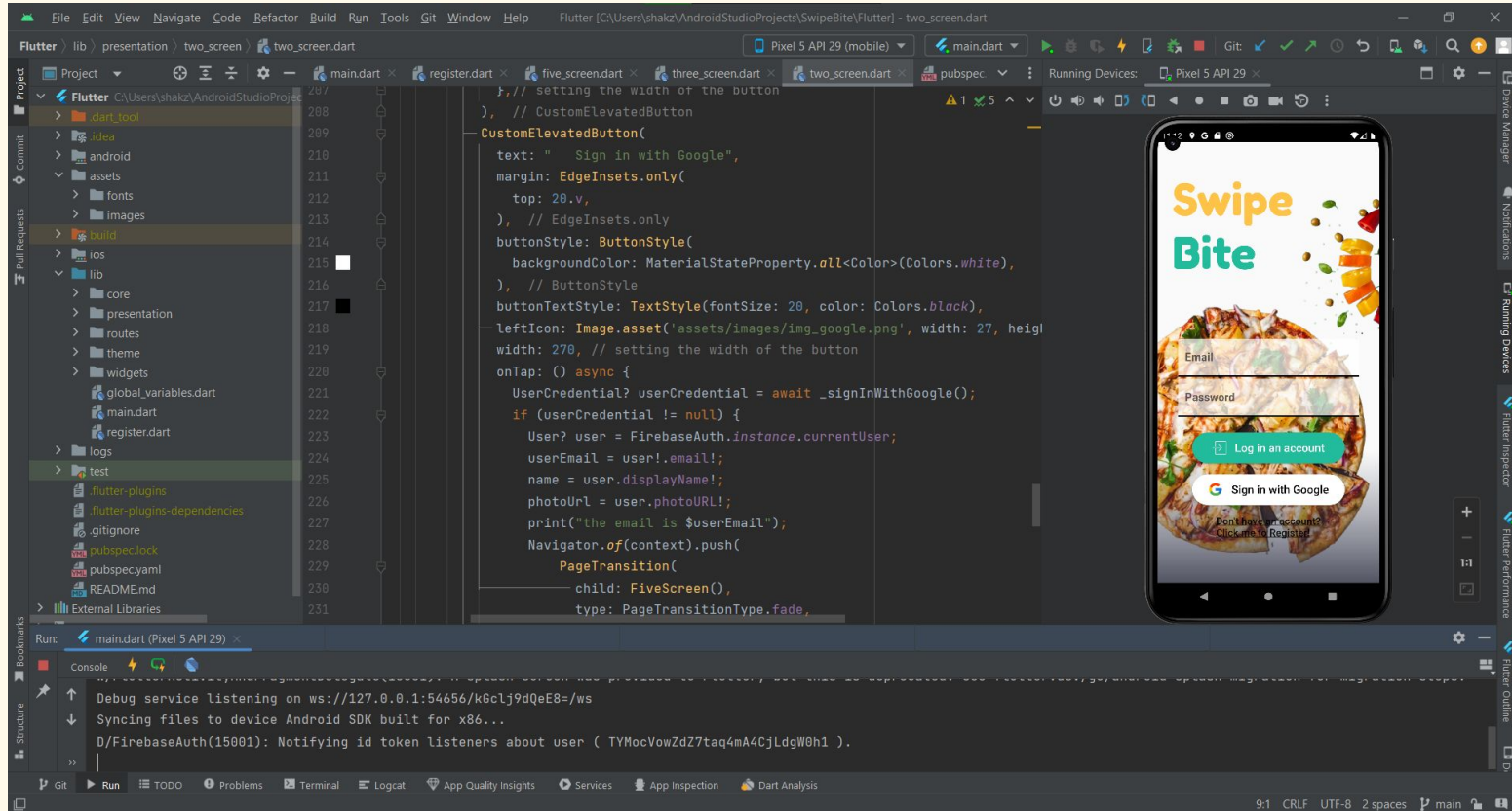
Naver Maps Crawler

We managed to crawl

- Name of restaurant
- Category of restaurant
- Ratings
- Number of Reviews
- Several Photos
- Opening Hours
- Whether Parking is available
- Phone Number
- Menu Plate
- Dishes and Price

UI/UX

Frontend

Frontend

- **.dart_tool & .idea**: System and IDE configuration directories.
- **android**: Platform-specific build configurations.
- **assets**: Houses static resources like images.
- **lib**: Main Dart code, with:
  - **core**: Core functionalities.
  - **presentation**: UI-related files, with individual screens and UI utilities.
  - **main.dart**: App's entry point.
- **Flutter version used**: Flutter 3.13.9 channel stable

Backend

- Have collected dataset using Python Crawler on NaverMaps and exported it as json file
- Have got 2 json files: 천천동_231102.json and 율전동_231102.json
- Each Place has following:

  - ❑ Address
  - ❑ Name
  - ❑ Category
  - ❑ Dish Pictures
  - ❑ Dishes
  - ❑ Menu Picture
  - ❑ Is Parking available

  - ❑ The Place picture
  - ❑ Review
    - ❑ Review count
    - ❑ Tags
  - ❑ Phone Number
  - ❑ Working Hours
  - ❑ Coordinates (will be added soon)

Backend

🏠 › RestaurantsHSS... › 정성식탁 ☁ More in Google Cloud ⌄

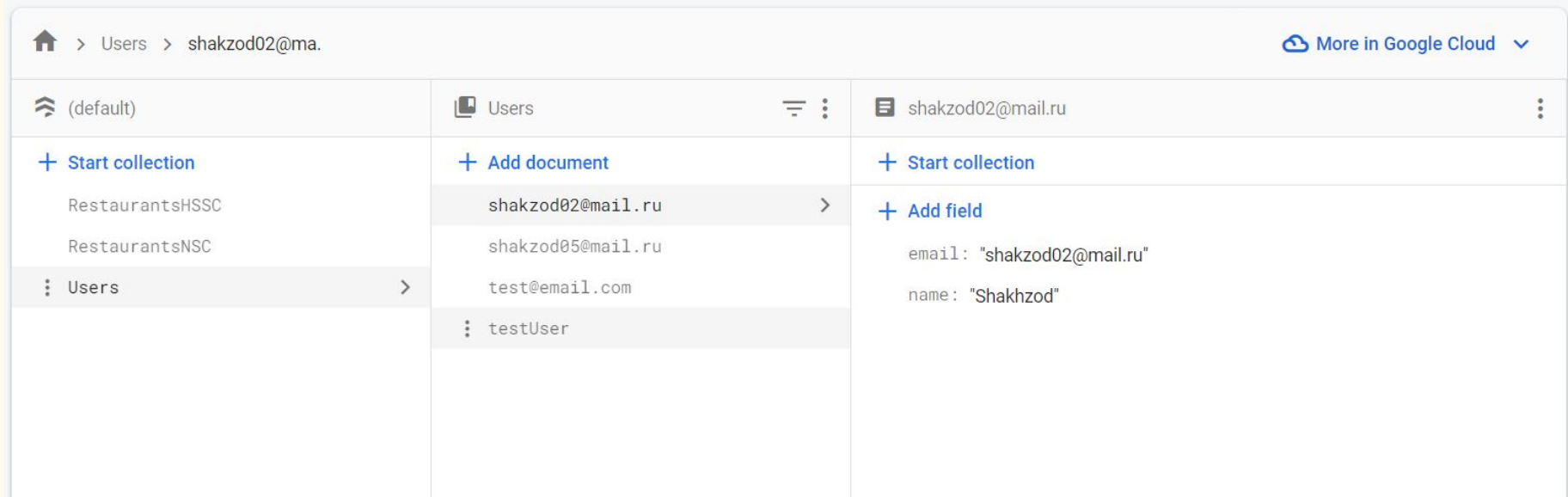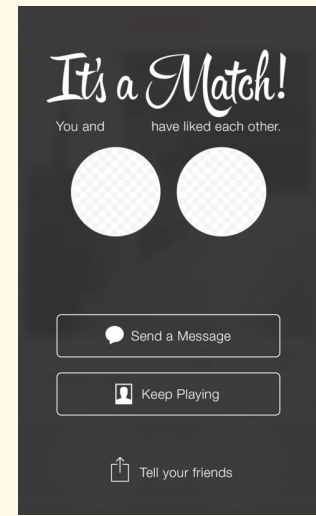| ⌃ (default)	📖 RestaurantsHSSC ▽ ⋮	📄 정성식탁 ⋮
+ Start collection	**+ Add document**	**+ Start collection**
RestaurantsHSSC ❯	작은바와 서양면집	**+ Add field**
RestaurantsNSC	장궁순대국 본점	address: "경기 수원시 장안구 서부로2136번길 9 1층 정성식탁"
	장수촌 천천점	category: "이탈리아음식"
	장원가마솥통닭	▷ dishPics: ["https://search.pstatic.n...]
	장터설렁탕	▷ dishes: [{name: "[그릴위에서제대로]부채살 스테이...]
	쟌비어스	▷ menuPlatePic: ["https://search.pstatic.n...]
	전설의치킨 성대점	name: "정성식탁"
	전이랑술이랑	parking: 0
	정성식탁 ❯	pic: "https://search.pstatic.net/common/?
	제주올레	autoRotate=true&type=w560_sharpen&src=https%3A%2F%2Fldb-
	족발더하기보쌈	phinf.pstatic.net%2F20230210_59%2F1675959939930IV6yk_JPEG%2FKa
	죠스떡볶이 수원천천점	▷ review: {reviewCount: "1,882", rev...}
	중평떡볶이 천천동직영점	tel: "0507-1338-1190"
	진국밥	workingHours: "영업 종료 11:30에 영업 시작 11시 30분에 영업 시작 목

Backend

- For managing the sign in/up we are using Firebase authentication

Objective/Milestone

- Load data from crawler into the app
- Finish integrating frontend and backend
- Implement logic for:
  - Creating room & connecting users
  - Finding restaurants
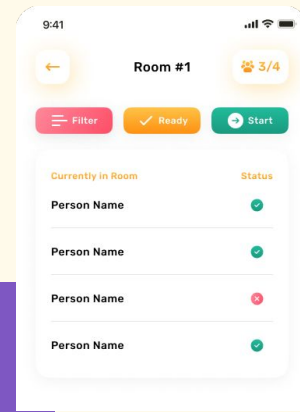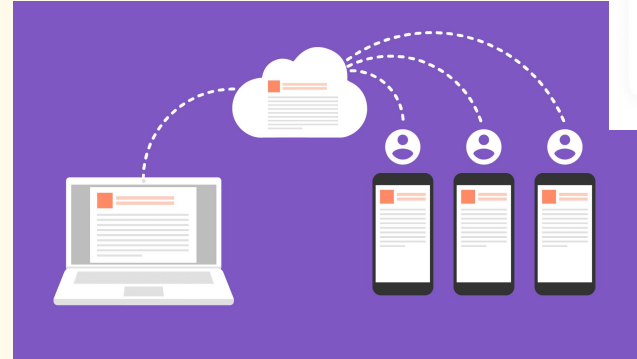 - Matching
- Fine Tuning

Challenges/Limitations

- Appealing UI

- Flutter, front-end

- Lack of restaurant information used for dataset

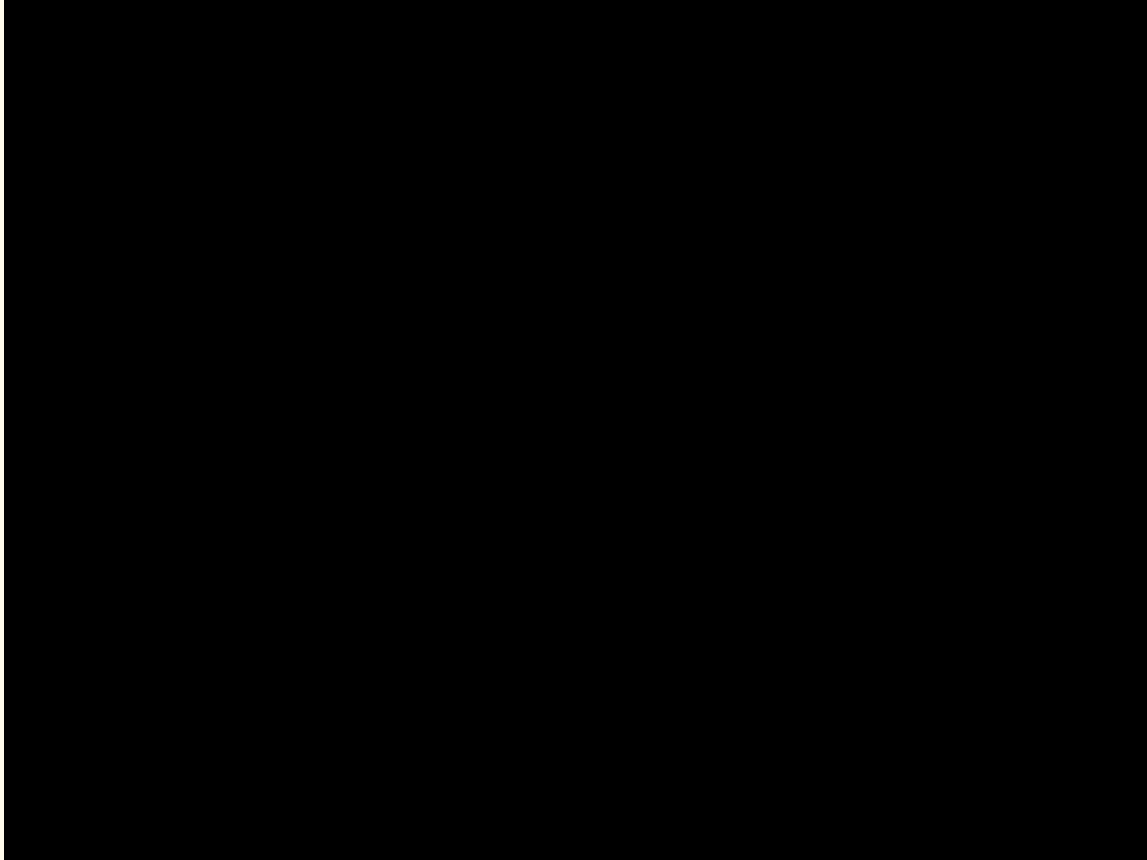- Designing an experience that smoothly facilitates group decision

Challenges/Limitations

- Real-Time Syncing: Ensuring the app performs real-time updates when multiple users are swiping and matching

- Scalability: Designing the app to handle a large number of users and simultaneous connections without performance lag

Login Demo

References

[1] How long does it take for someone to find where to eat

[2] Couples spend 132 hours a year deciding where to eat